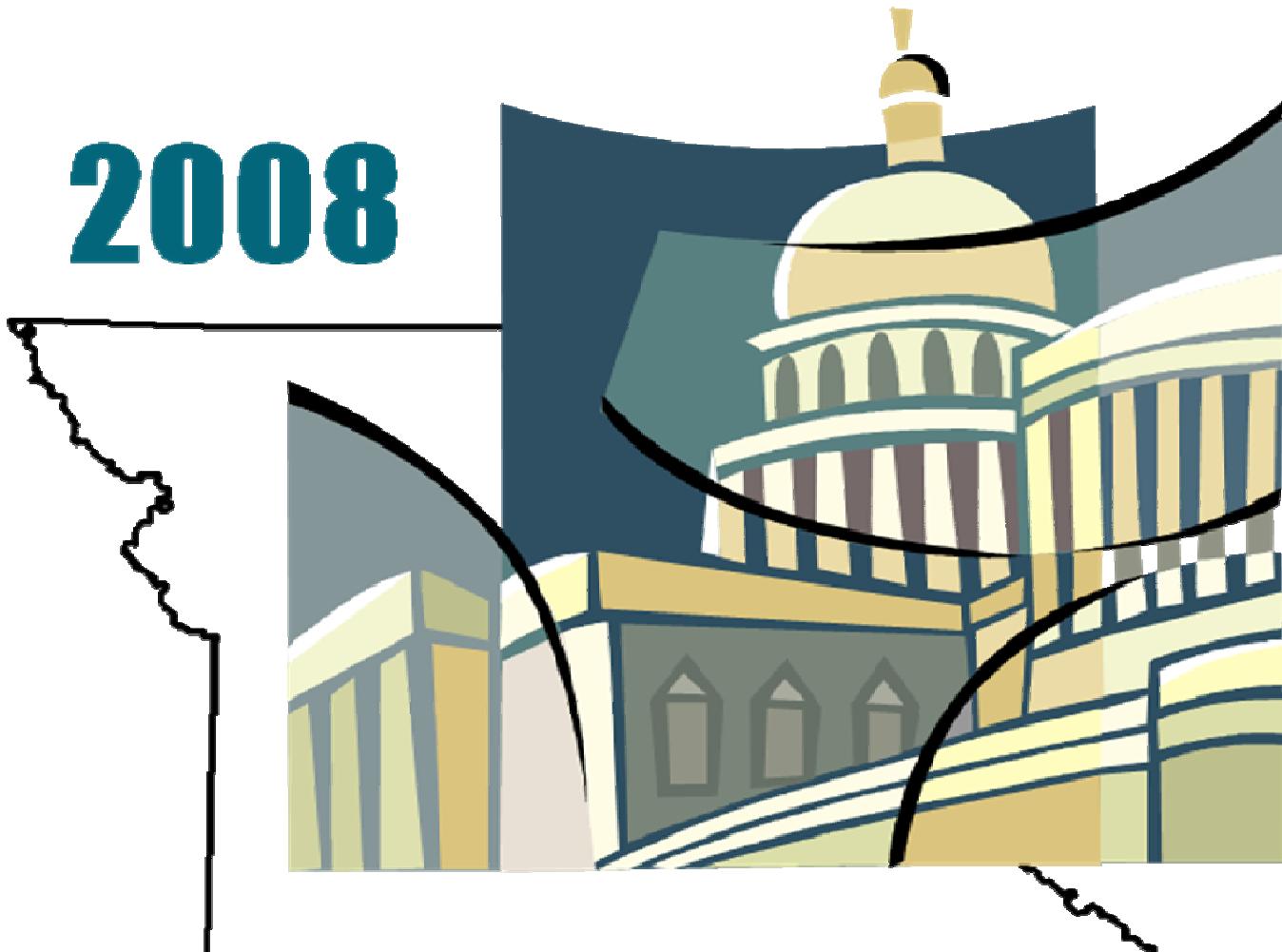


**2008**



**Dan Ross, CIO  
State of Missouri**

**State of the State  
Information Technology Report**

# Table of Contents

<b>The Report .....</b>	<b>3</b>
<b>Strategic Direction .....</b>	<b>5</b>
<b>ITSD Statewide Accomplishments.....</b>	<b>7</b>
<b>2008 ITSD Accomplishments.....</b>	<b>13</b>
<b>2008 Agency Accomplishments .....</b>	<b>24</b>
<b>2009 ITSD Planned Projects .....</b>	<b>29</b>
<b>2009 Agency Planned Projects.....</b>	<b>40</b>

# The Report

The State of the State Information Technology Report is an annual review of the top three information technology accomplishments of the 2008 calendar year and the top three planned projects for the upcoming year for the Missouri State Government information technology (IT) community. The report encompasses all cabinet-level agencies within the consolidated IT environment as well as other Missouri State Government agencies and offices that choose to participate.

## ***Executive Order 06-34***

Executive Order 06-34, dated October 11, 2006, provided for the renaming from the Office of Information Technology to the Information Technology Services Division (ITSD). This established and recognizes the fundamental change of Missouri State Government's IT community to a consolidated structure, better positioned to coordinate and leverage the state's human and technical resources related to information technology. The order further establishes a Chief Information Officer designated by the Commissioner of Administration and serving at the will of the Governor. Key highlights of Executive Order 06-34 give focus and direction for the Information Technology Advisory Board (ITAB), enterprise IT architecture and communication standards, statewide policies, an information technology strategic plan and the annual State of the State IT Report.

## ***Information Technology Consolidation History***

January 2005 brought with it the beginning of a new administration for Missouri State Government. Matt Blunt became the state's 54<sup>th</sup> Governor bringing with him a vision of change in how government operates. A key initiative on the Governor's agenda was the consolidation of Missouri's information technology resources. To accomplish this task the Governor appointed Dan Ross, a 36-year employee of Missouri State Government, as the state's third Chief Information Officer (CIO).

As of July 1, 2006, all information technology staff, equipment and budgets, with the exception of elected official's offices, the judiciary, agencies governed by commissions as well as the Missouri State Highway Patrol now fall under the direction of the Chief Information Officer and are staff of the Office of Administration-Information Technology Services Division (ITSD). This consolidation of IT personnel and resources fundamentally changes the CIO position from a collaborative, decision and policy-recommending role with the departments to a full budget-authority role with the ability to leverage both human and technical resources for efficient and effective government.

Consolidation of the state's information technology staff and technical resources has been a huge undertaking with the realization of significant cost savings, cost avoidance and a reduction of fifty FTE staff. Those savings will continue to be realized through the

sharing of resources and staff knowledge, leveraging of the state's purchasing power to reduce procurement costs, and through efforts to reduce electric power consumption and recycle e-waste.

At the time this report is released, Attorney General Jay Nixon will assume the role of Governor on January 12, 2009. A final decision is pending on the state's Chief Information Officer, but there is no indication of any significant changes for the information technology consolidation effort.

The Information Technology Services Division supports the following agencies:

Office of Administration	Department of Agriculture
Department of Corrections	Department of Economic Development
Dept. of Elementary & Secondary Ed.	Department of Health and Senior Services
Department of Higher Education	Department of Labor & Industrial Relations
Department of Mental Health	Department of Natural Resources
Department of Public Safety	Department of Revenue
Department of Social Services	Department of Insurance, Financial Institutions and Professional Registration

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# Strategic Direction

For the fourteen executive branch departments within the Information Technology Services Division, strategic direction is set through the Chief Information Officer's Strategic Plan and the individual Service Level Agreements (SLA) with each executive branch department. A third component supporting strategic direction comes from the work accomplished through the Information Technology Advisory Board's Architecture Steering Committee.

## *Information Technology Services Division Strategic Plan*

### *The Mission*

The mission of the Information Technology Services Division is to provide technology services and solutions for the State of Missouri departments and agencies so that they can efficiently serve their customers.

### *The Outcomes and Measures*

Three high-level outcomes comprise the over-arching direction of the Information Technology Services Division. With the role of providing services and solutions to the State of Missouri departments and agencies, the successful delivery of the numerous and varied support services by the division are key to Missouri State Government departments and agencies to accomplish their respective missions. Those outcomes are:

- ***Efficiently Run IT Resources and Systems***
- ***Reliable IT Systems***
- ***Available IT Resources***

The performance measurement system includes key indicators for the state network, application performance, server and storage capacity, end user support, and administrative functions such as project management and staffing levels, disaster recovery, cyber security, etc.

### *Service Level Agreements*

The individual Service Level Agreements serve as technology business plans for each agency served and are the foundational document between the consolidated IT units and the departments. They consist of the measures from the strategic planning document, plus a prioritized list of projects set forth from the department customer to be delivered by the Information Technology Services Division. Each department meets with ITSD quarterly and annually to review the measures and update the project list.

### ***Architecture Steering Committee***

The technical direction for the state is set through the Information Technology Advisory Board Architecture Steering Committee. This committee reviews all trends and best practices in the technology field and sets the standards and guidelines to which all technology investments in Missouri adhere.

In order to maintain consistency, the steering committee continually works to review new technologies as they are introduced to the market and to sunset those current technologies as they become outdated. A full report on their methodologies, findings and artifacts can be found at <http://www.oa.mo.gov/itsd/cio/enterprisesearch.htm> .

Between these three documents, the CIO and other IT stakeholders establish a direction for Missouri.

# ITSD Statewide Accomplishments

## ***Missouri Business Portal***

The Missouri Business Portal is a collaborative effort of the Secretary of State, Departments of Economic Development, Revenue, Labor and Industrial Relations, Information Technology Services Division and the University of Missouri Small Business Development Centers. Launched on February 20, 2007 as a single point of entry for entrepreneurs to interact with the state, the portal was enhanced in 2008 adding two new features. Missouri entrepreneurs can now perform self directed searches of state permits and licenses as well as city and county points of contact. These searches are integrated into the steps of the Portal or can be accessed directly by linking to:

Home Page: [www.business.mo.gov](http://www.business.mo.gov)

Permits Lookup: [www.business.mo.gov/lookup/PermitSearch.aspx](http://www.business.mo.gov/lookup/PermitSearch.aspx)

City/County Lookup: [www.business.mo.gov/lookup/CityCounty\\_Search.aspx](http://www.business.mo.gov/lookup/CityCounty_Search.aspx)

The final phase of the Missouri Business Portal project is currently underway. This phase involves the development of a new application that will seamlessly automate data collection and management between the participating state agencies, while maintaining the functionality and integrity of existing agency systems and technologies. Entrepreneurs will be able to register their business with the state in a single online process. Streamlining the process will save time, reduce errors and eliminate duplication for both the citizens and the state.

## ***Next Generation Network***

State agencies have migrated approximately 300 data circuits from legacy frame relay and point-to-point technologies to newer MPLS services from AT&T. Additional migrations are planned for the coming year. In addition, the state is expanding the use of MPLS technologies on its core network.

The procurement of higher bandwidth speeds is realizing a lower cost-per-unit ratio than was previously available and network circuit sharing is now viable in more locations statewide.

Major network points-of-failure statewide are being mitigated by the combination of MPLS, broadband technologies, and diverse-path fiber and copper network services.

## ***Disaster Recovery Site***

ITSD requested and received \$ 1.9 million as the first of a three-year investment in the creation of a disaster recovery site for open systems (Intel, Unix, AS/400) platforms.

ITSD and partner agencies undertook a lengthy process to study suitable locations based on the availability of sufficient power, connectivity, and survivability. Nearly a dozen risk factors were reviewed when determining the optimum locations for disaster recovery sites within the state. As a result of the study and subsequent funding, the state has entered an agreement for the initial development of a recovery space and the connectivity to address this need.

### ***Procurement and Contracts***

With the help of the Division of Purchasing, OA/ITSD was able to develop new contracts that provide better long-term pricing and flexibility for state customers. These contracts included Wireless Products & Services and Cisco Networking Products. In addition, the state was able to establish a volume agreement for ISDN services, providing significant savings to customers of this service.

### ***Implementation of IT Service Management Best Practices***

Planning for the implementation of service management best practices, including configuration, change, incident, and problem management, has begun and will continue into CY09. Configuration management tracks infrastructure items and their configuration, which allows accurate and complete asset inventory and control, and aids in problem prevention and resolution. Effective change management practices ensure that all changes are handled efficiently, minimizing the occurrence and impact of change-related incidents and improving normal operations. Incident management best practices allow normal service to be restored as quickly as possible, while problem management techniques resolve the root cause of incidents, reducing their impact and avoiding reoccurrence.

### ***Standardized Desktop Office Software***

Licenses for the current version of Microsoft Office software and ongoing upgrade rights were obtained for four departments that did not have the option to upgrade under the terms of their existing licenses. Migration to a single standardized current version has been completed for three of the four agencies, and the upgrade for the fourth agency will be completed in CY09. Standardizing on a single version of office desktop software reduces support costs and ensures compatibility when sharing documents.

### ***IT Staff Recruitment***

IT staff recruitment efforts continue to support the increased demand for qualified IT professionals. The IT Careers website, introduced in 2007, has proven very successful as a one-stop website for IT career opportunities across all state agencies. Consistent weekly advertising of the IT Careers website URL in local newspapers promotes the awareness of state government IT careers. Agency volunteers continue to attend higher education and community career fairs promoting the state's IT career opportunities. A significant accomplishment in 2008 was the approval from the Personnel Advisory Board

(PAB) to allow Computer Information Technology Trainee and Computer Information Technologist I positions to be recruited, interviewed and hired directly by the agency rather than go through the lengthy merit system process. The initial six-month trial proved so successful that a proposal is on the PAB agenda for January 2009 to allow the Computer Information Technology II and III positions to be filled in the same manner.

Another avenue of recruitment is through participation and support of the Jefferson City Information Technology Coalition. The coalition's current activities focus on encouraging students to consider IT careers through events such as career fairs, a one-week computer science camp called CPoD, Girls in Technology events in partnership with Cisco Systems, and IT career awareness presentations to teachers and school counselors.

### ***Virtual Community Efforts***

In late 2007 ITSD took its first step into the virtual world of Second Life with a kiosk dedicated to the recruitment of IT professionals for Missouri State Government. During 2008, three in-world career fairs were held resulting in the hiring of a computer science graduate from the University of Missouri-Rolla. A low-cost investment (approximately \$300) to rent space and create the Second Life IT Recruitment kiosk has resulted in a substantial return on investment in comparison to traditional costs of recruitment efforts.

Interest by other state agencies to use virtual worlds and other social networking tools to interact with citizens resulted in the formation of the Virtual Community Steering Committee (VCSC) in November 2008. This committee will set direction for the services provided through virtual communities and other social networks and provide policy and guidelines of how the state conducts business in this new, evolving technology platform.

Missouri recently acquired a Second Life island for use by state agencies. In its early development stage, a request for consulting services is currently underway to identify a "look and feel" plus development plans for a welcome center. A surname of "MissouriGov" was recently purchased that will be used for names of avatars created for doing in-world business on behalf of the state. To support this effort, an avatar request process along with in-world guidelines are in place. During calendar year 2009 efforts will be made to develop the Missouri Government Island and open it to visitors.

### ***Architectural Review Committee (ARC)***

During 2008 the ARC was tasked with the refresh of all current artifacts within the state's information architecture. Along with the refresh, the committees will also recommend, when appropriate, that the artifact be changed from a guideline to a standard. This review will continue through 2009.

### ***Missouri Accountability Portal (MAP)***

During 2008 the Enterprise Applications and Data Management team enhanced the Missouri Accountability Portal (MAP) site to include an Employee branch which allows taxpayers to view gross pay amounts by employee name, job title, or agency. A link was added to transfer the user to the Department of Revenue's 'Who is not paying?' website. It is anticipated that the new administration will have further enhancements to the MAP site, but they have not yet been identified.

### ***Productivity, Efficiency and Results for Missouri (PERforM)***

The Enterprise Applications and Data Management team created PERforM 2.0 to enhance end user functionality. Implemented in November 2007, the online system facilitates the development of annual performance objectives and the electronic storage and reporting of employee performance records. The PERforM 2.0 enhancement was completed in October 2008. It will be enhanced in 2009 to expand reporting capabilities.

### ***Statewide Application Development Methodology***

The application development methodology initiative will establish a methodology for all application development staff in the Information Technology Services Division so that they can develop more efficient, reliable and available applications. The initiative focuses on the full application development lifecycle. It takes into consideration the effort from the initial planning stages of an application through the time and application is disposed. The methodology focuses on the domains of custom built applications, commercial off-the-shelf (COTS) implementations, outsourcing, third party integration, and application maintenance.

### ***Sharepoint***

SharePoint is a technology for building and supporting rich collaborative web sites that may include document management and workflow functions. A Shared SharePoint Infrastructure (SSPI) has been developed to support SharePoint sites for any state agency. Both Intranet and public web sites are supported. The SSPI is governed and operated by two interagency teams representing ITSD and other agencies. The first active web sites are being used and development is underway for several others. The Shared SharePoint Infrastructure (SSPI) is designed with the capacity to support a fast growing set of web sites and document libraries. Governance and Operations will be shared by inter-agency teams, but development will be supported at the agency level. There is considerable opportunity for widespread adoption and enhanced usability and productivity. Communication with all agencies will be part of the mission of the SSPI Governance Team during 2009.

### ***Common Application Development Methodology***

A draft version of the Application Development Lifecycle Methodology was completed in 2008 for custom development projects. Initial drafts of methodology variations are underway for projects based on outsourced development, third-party integration, Commercial-Off-The-Shelf products, and Maintenance projects. Final versions of the methodology documents will be completed early in 2009. Training of ITSD managers and staff will occur early in the year.

### ***Statewide Advantage for Missouri (SAM II) and Related Systems***

- Folio conversion (COAPP). SAM II Policy & Procedure manuals and other documents are currently accessible through a software product called Folio. Folio maintenance and support contracts have expired and an upgrade is cost prohibitive. The SAM II Chart of Accounts, Policy and Procedure (COAPP) Project was started in November 2008 and is scheduled to be completed in May 2009. This project will move the manuals and documents out of Folio and into a new Sharepoint site which is accessible to all agencies through the intranet.
- Vendor Payment site. The Vendor Payment website was created in 2005. It provides vendors with the ability to track paid invoices and in some cases receive an email when a payment has been processed. The site was built using older technology and without search capabilities. An upgrade project was started in November 2008 which adds search capabilities on dates, amounts, and invoice numbers. It will also expand the email notification to companies. The site will be moved to the SDC blade center to improve recoverability and rewritten in C#.net to bring it up to current standards of development. The upgrade is scheduled to be completed in May 2009. Future plans for the site in 2009 include adding a new feature which will allow the vendor to find 1099 payments.
- Brass Migration. The statewide budget system, Brass, will be moved to the SDC Blade Center in 2009. A vendor provided upgrade will be applied which will make it compatible with the Windows Vista operating system. The scheduled implementation date is July, 2009.

### ***State Data Center (SDC) Initiatives***

- A new virtual tape solution procured at the end of FY08 is fully implemented on the mainframe and the old virtual tape library's maintenance has been dropped.
- The SDC procured and installed a new mainframe processor to combine two mainframes into one and eliminate the need for a computer room in the EDP building.

- An agreement was signed in 2008 with Symantec for Enterprise Vault and implemented it in the Exchange consolidated environment.
- Work is currently in progress to establish an open systems disaster recovery site that realistically serves as a secondary site to ensure hardware and software is effectively utilized in both physical sites.
- Progress is being made to build and support the Department of Revenue's new application to replace the driver's license motor vehicle systems that currently reside on the mainframe. The new system will be hosted on the SDC server and storage environment.
- The SDC is currently building virtual server environments to support both production and open systems disaster recovery implementation. During 2009 installation of an I-Series disaster recovery platform will be complete for DOLIR, DMH and DOC.
- An RFP is in progress of being created to replace the existing mainframe tape silos in the computer room. Sun Microsystems is dropping maintenance on these products, so it is mandatory to bring in different technology.
- During 2009 work will continue to develop the disaster recovery site into a production/test environment to support the state's disaster recovery requirement for the open systems platforms.
- The SDC continues to consolidate servers and various computer rooms throughout the Jefferson City area.

### ***Green Initiatives***

Implementation is underway for “intelligent” PDU technology to more effectively monitor power and cooling within the State Data Center.

As the result of a major initiative in 2007 to reduce the number of servers, the State Data Center is experiencing a better than 30 to 1 reduction in power when virtualizing the server load.

During 2008 the State Data Center effectively eliminated two computer rooms and continues to work toward the consolidation of redundant facilities.

# 2008 ITSD Accomplishments

## ITSD Supporting the Office of Administration

### *FMDC Time Accounting System*

In July 2007, Office of Administration's (OA) Facilities Management and Design and Construction (FMDC) consolidated all the facilities staff from various agencies into OA. As a result of this, OA/FMDC staff are now located across the state in various facilities and there was no easy, uniform way of doing time accounting for these individuals. OA/ITSD developed an Internet-based Time Reporting System for OA/FMDC that allows all FMDC employees to complete their time from any computer with Internet access. This has greatly reduced the administrative time FMDC has to spend entering the time into SAMII as the new system interfaces automatically with the push of a button.

### *Document Imaging*

Several divisions within Office of Administration utilize a document imaging solution supported by OA/ITSD. This solution had not been upgraded in sometime and incompatibilities were being experienced with newer software releases. This document imaging environment was upgraded to the latest version and reconfigured to improve response time not only for the business users within the Office of Administration, but also for the general public utilizing the public facing portion of the imaging environment.

### *Laptop Encryption*

As a part of an enterprise agreement, a laptop encryption product called Safeboot was made available to OA/ITSD. In 2008 we successfully loaded and encrypted 100% of our portable computer devices. This product will ensure all data that is stored on laptop hard drives will be secured should that device be lost or stolen.

## ITSD Supporting the Department of Agriculture

### *Fairgrounds Fiber Infrastructure*

One the ITSD/MDA's largest accomplishments in 2008 was getting a fiber infrastructure in place on the Missouri State Fairgrounds. For nearly two weeks a year dozens of MDA staff work at the fairgrounds, plus staff located there year-round. The fiber communications allows for work orders to be processed from the domain on the far reaching side of the fairgrounds. In addition to hosting the Missouri State Fair each year,

the fairgrounds act as the disaster recovery location for the State Emergency Management Agency (SEMA). The fiber infrastructure allows for deployable, hard-wired communications in case of a disaster.

### ***MDA Website***

In 2008 ITSD/MDA completed a project of overhauling the department website from top to bottom. The project took nearly 8 months. ITSD/MDA addressed several key concerns in the redesign including handicap accessibility 508 compliance. All material was updated and the site was restructured for easy navigation. In addition, the site is formatted to allow Agriculture staff to update webpages directly with approval of the Public Information Officer.

### ***Platform Migration***

Several systems from the AS400 platform were migrated in 2008 to a Windows platform. Migrated systems include Treated Timber, Livestock Dealer and Producer Licensing, Merchandising Council, and Aquaculture. Currently ITSD/MDA is migrating the Treated Timber system and created an interface to allow the public to search the various wood products via the website.

## **ITSD Supporting the Department of Corrections**

### ***Adult Institution Local Area Network and Computer Hardware Upgrade***

This is a continuation of the upgrades that were started in 2006. During 2008 thin clients were replaced with personal computers at South Central Correctional Center and Eastern Reception, Diagnostic and Correctional Center; the local area network was upgraded and dumb terminals replaced with personal computers at Algoa Correctional Center; copper wiring was upgraded to Category 5 wiring. A fiber backbone installation was begun at Farmington Correctional Center and fiber backbones were installed at Ozark Correctional Center, Northeast Correctional Center, Fulton Reception and Diagnostic Center, and Missouri Eastern Correctional Center. These upgrades allow Department of Corrections' staff to be more productive in their daily work duties.

### ***Offender Management Information System Replacement***

During 2008 ITSD/DOC began projects to replace the Offender Management Information System—OPII—that the Department of Corrections has utilized for the past 10 years. Portions of OPII will be replaced over the next five years with a web-based system developed by a consortium of states and modified to fit the needs of the Missouri Department of Corrections. OPII was developed using green screen technology. Replacing these systems with systems based on current web technologies will reduce maintenance costs and improve Department of Corrections' staff productivity.

### ***Probation and Parole Tablet Computer Project***

During 2008 tablet computers were purchased for probation and parole officers that will allow them to work more efficiently in the field. Officers will be able to access DOC information either through a cellular wireless connection or in a disconnected mode. When completed during the first half of 2009, more than 1,200 tablet computers will have been deployed. Tablet computers, cellular wireless connectivity, and applications capable of working in a disconnected mode will allow probation and parole officers to be more efficient and effective.

## **ITSD Supporting the Department of Economic Development**

### ***Toolbox II***

The Division of Workforce Development successfully implemented a custom off-the-shelf software solution as the replacement to their existing Labor Exchange and Case Management system. The system was developed in Java, Oracle Forms with an Oracle Database and was delivered on time and on budget. The project was completed in May 2008.

### ***Customer Management System (aka Tax Credit Administration System)***

In response to a request from the Joint Committee on Tax Policy, the tax credit administration system (CMS) was expanded to accommodate programs for the Department of Agriculture, the Department of Natural Resources and the Department of Social Services. This integration of programs enables the state to better track the complete lifecycle of tax credit issuances. The project was completed in early December 2008.

### ***Next Generation Network (NGN) – WAN Location Upgrade***

The aggressive pricing through the NGN made upgrading remote locations to higher speed network connectivity feasible, increasing the bandwidth necessary to support upgraded technology solutions such as Toolbox II. The project was completed in March 2008.

## **ITSD Supporting the Department of Elementary and Secondary Education**

### ***ePeGS Phase I – Electronic Planning and Electronic Grant System***

The first phase of ePeGS was completed in 2008. This multi-year project created a seamless electronic planning and grant tool for school districts, other educational institutions, and the Department of Elementary and Secondary Education (DESE) so that

there is a comprehensive plan and consistent application process to provide information for budgets and school improvement planning. Two legacy grant systems, which had not kept up with changing business needs and law changes, were replaced. In addition, eleven Plans required by law were automated. This project is a multi-year project which, in addition to the Plan and Grants implemented, saw the beginning of the second phase of the Grant system.

### ***Licensure System***

This project is intended to be a computerized system that is a complete record of the components and decisions required for issuing, revising, renewing, and revoking a Missouri certificate of license-to-teach. As a result, processes used by the Educator Certification section within the Department of Elementary and Secondary Education will be improved in order to increase the efficiency and productivity of the section. This system will also more fully integrate Substitute Educator Certification; background checks and FBI fingerprints; Praxis test scores; competency reports for educator preparation programs; and linkage to Core Data with the Educator Certification processes. In addition, more automated processes will be put in place to ensure the accuracy of data used in the certification of educators including automating some processes for accessing external data sources used to verify convictions or other unacceptable behavior. This project is anticipated to begin in the 2008 calendar year in cooperation with at least one and possibly two other states.

### ***Security System for Web Applications***

This project replaced an older security system for the web applications that was not customizable or flexible enough to fit the new security requirement many of the new web applications require. This security system, originally written by the Department of Mental Health and DESE, took the source code and modified it to work with DESE web applications. The cost savings for reusing code were between \$50,000 and \$100,000. Also the system will be able to handle future requirements previously not possible with the original off-the-shelf software.

## **ITSD Supporting the Department of Health and Senior Services**

### ***Microsoft Office Migration***

ITSD/DHSS transitioned from Microsoft Office 2000 to Office 2007 on all DHSS computers located throughout the state. A total of 2500 computers were migrated in over 130 sites statewide. ITSD staff conducted training to assist the customers with the new enhancements of Office 2007. DHSS had been using Office 2000 for the previous 6 years.

### ***DHSS Information Technology Advisory Committee***

ITSD/DHSS worked with DHSS to reengineer the structure, focus and methodology of the DHSS Information Technology Advisory Committee (ITAC). This committee reviews all department IT projects; new requirements or modifications, to insure the request aligns with the DHSS mission, insure funding (new and on-going) is accounted for, examines IT supportability, rates the project and provides a project prioritization. This allows ITSD-DHSS to focus the limited resources on the highest priorities and schedule work accordingly.

### ***Novell Migration***

ITSD-DHSS completed the migration of Novell products to Microsoft; converting 60 Novell fileservers to Microsoft fileservers. This effort involved upgrading servers, reloading OS and migrating over 4.5 terabytes of data.

## **ITSD Supporting the Department of Higher Education**

### ***Server Migration to the State Data Center***

ITSD/DHE migrated all of the servers to the State Data Center's (SDC) environment. ITSD/DHE's server room had several issues with leaks, plus the servers needed to be upgraded. ITSD/DHE purchased new servers and migrated all the databases and web applications to the new servers which are now located at SDC.

### ***Microsoft 2007 Upgrade***

ITSD/DHE conducted a great amount of research to gather good quality presentations and helpful training materials for Microsoft 2007. Kathy Woodling conducted several training sessions for the DHE employees to attend prior to rolling out the new version. The upgrade was rolled out by groups/sections and planned accordingly to what time would be most beneficial to the group/section. The result was a very successful upgrade to Microsoft 2007.

### ***Intranet Redesign and Contribute Installation***

DHE requested a redesign of the Intranet site. ITSD/DHE moved the website location from a local server to a server in the State Data Center environment. The Intranet redesign was a great success and a huge improvement over the previous product. DHE and IT staff now use the Intranet extensively due to its ease-of-use. ITSD/DHE purchased Contribute software to allow DHE staff to make their own updates to the Intranet rather than submitting a work order for ITSD/DHE staff to manually do all Intranet website changes.

## **ITSD Supporting the Department of Insurance, Financial Institutions and Professional Registration**

### ***Server Consolidation***

ITSD/DIFP completed the migration of all servers located in the Truman Building to the State Data Center's consolidated server farm. This phase of the migration included ITSD/DIFP-Insurance's primary Oracle database servers as well as ITSD/DIFP-Finance's production and imaging servers along with associated databases, applications, batch jobs and images. The move improved overall system performance, facilitated large report production and provided improved hot and cold database backups as well as contributed to more efficient server maintenance tasks.

### ***Network Upgrades***

With approximately one-half of the department's personnel (Professional Registration) located outside the Truman Building, point-to-point network performance and reliability are sometimes an issue. During 2008 the existing Metropolitan Area Network (MAN) connection was upgraded from 10 megabits to 50 megabits. This upgrade provided additional bandwidth to all external network connections in use by the Division of Professional Registration. A related project upgraded the remote Network Backbone Switch to Gigabit Ethernet capacity to satisfy ever-increasing bandwidth needs within the Division of Professional Registration. These upgrades improve the overall performance of the network and will allow for the anticipated future increases in network traffic.

### ***Consolidated Help Desk Solution***

During 2008 ITSD/DIFP completed the consolidation of all DIFP divisions under a single help desk strategy. The Divisions of Insurance, Finance and Credit Unions began using the GWI Help Desk solution in conjunction with the Division of Professional Registration, who had been piloting the application. The consolidation of the Help Desk application permits department-wide analysis and response to user requests as well as facilitates the capture and reporting of other network and technology issues.

## **ITSD Supporting the Department of Labor and Industrial Relations**

### ***Unemployment Insurance Modernization (UIM) – Phase 1***

Phase 1 of UIM provides a complete business analysis of all of the Division of Employment Security's business operations. The Division of Employment Security collects taxes from employers in order to provide unemployment compensation to claimants. The requirements and recommendations from Phase 1 will be used in Phase 2

for the design, development and implementation of the new system to streamline functions. The project was completed in May 2008.

### ***Employment Security Debt Cards***

ITSD/DOLIR implemented a process to make all payments available by debt card. All payments will now be either made by direct deposit or by debit card. The resulting savings in postage could exceed \$500,000.00 a year. Greater security of payments and quicker access to the funds will benefit claimants. The project was completed in November 2008.

### ***Second Injury Fund Surcharge Application***

This application is responsible for billing and collection of all Second Injury Fund surcharge payments from Commercial Insurers and Self Insurers. The new application provides full tracking of all payments, late fees, interest, deposits and up-to-the-minute ledger balances for each insurer. The application also provides electronic notifications for quarterly billings, as well as the ability for insurers to file quarterly payments through the web-based interface. Another function of the application is that it also maintains an electronic interface with the Department of Insurance, Financial Institutions and Professional Registration for automatic receipt of standard premium data and insurer authorization. The project is scheduled for completion in December 2008.

### ***Division of Employment Security IVR Infrastructure Upgrade***

The Interactive Voice Response (IVR) infrastructure underwent an upgrade in 2008. This system directs calls to DOLIR's Cisco IP Contact Center and Call Manager systems. The new systems replaced the existing Nortel Periphonics IVR systems at the call center locations in Jefferson City, Kansas City, and Springfield as well as the St. Louis call routing location. The previous systems were at an end-of-support timeframe as of July 1, 2008. This project required new systems for production and development/testing to be implemented and the five IVR applications to be converted to work with the new systems. The project was completed in August 2008.

## **ITSD Supporting the Department of Mental Health**

### ***CIMOR – Quality Assurance***

Increased the Quality Assurance associated with the DMH core application, CIMOR. This improvement reduced the risk of up and down stream dependency errors following change implementations. Thus, rework has been decreased and user confidence is improved. This improved change management principle and the confidence that it has created is key to the advancement of CIMOR to the DMH provider community.

### ***DMH Region Reduction***

Collapse of Regions from 7 to 4 resulted in several process improvements. It expedited the completion of GWI help desk implementations at each facility, improved technical resource sharing between facilities, allowed management to re-allocate FTEs to positions in greater need of support than historical precedence demonstrated, and improved the communications to the Facility Executive Staff regarding ITSD initiatives.

### ***Next Generation Network (NGN)***

The NGN Installation fulfillment provided the Department of Mental Health a means to exploit technologies over a WAN that would have saturated the old network resulting in unacceptable performance for DMH end users. Each facility was required to transition from the old network to the Next Generation Network. The initiative involved a great deal of coordination with local service providers, local facility personnel, OA networking, and DMH networking staff and was completed with minimal service disruption. This is a network backbone infrastructure initiative that DMH will benefit greatly from.

## ***ITSD Supporting the Department of Natural Resources***

### ***Application Development Projects***

Application Development Projects were a high priority for the Department of Natural Resources with several applications being developed. The first phase of the Mo Clean Water Information System (MoCWIS) was completed and placed in production. This portion of the MoCWIS application deals with Water Quality Standards which are the published statutory standards that classified water bodies in Missouri must adhere to and are published by the Secretary of State Office. The reports that were being generated manually are now generated from the application and can be produced quickly and accurately. MoCWIS Phase 2, analysis and design of the Water Permitting and Compliance part of the application was completed which includes application processing, permit management, compliance monitoring and enforcement management.

The Missouri Soil and Water Information System (MoSWIMS) was put into production in July. This application consolidated 114 soil and water district individual databases into one web enabled application that improves the business processes and the accuracy of the data.

The Environmental Interest Processor was developed so the department could use its vast collection of geographic information systems (GIS) data to automate responses to requests for information about features of environmental interest in areas where development projects are scheduled. A single project may require several requests for information during different phases of execution. In the past each request was distributed to multiple programs in the department who then conducted searches of numerous databases and manually prepared responses. This process has been streamlined using

GIS technology. Requestors provide GIS data denoting their project area, and that input file is used to select features of interest and create output files that include complete documentation along with a summary file. The entire process can now be completed in a matter of minutes by one person.

### ***District Office Network Unification Task***

The District Office Network Unification Task (DONUT) was completed in early 2008. Starting in 2008 the federal government would begin charging the 114 Missouri Soil and Water District Offices a network connection fee totaling \$1,000,000 - \$1,500,000 annually. By ITSD/DNR providing this service an initial cost avoidance of \$750,000 was realized for 2008 and additional cost avoidance of \$1,000,000 for each year thereafter.

### ***Video Conferencing***

Phase 1 of a Video Conferencing project was completed during 2008. Integrating the use of video conferencing equipment into the DNR offices resulted in an increase of productivity by allowing staff to attend meetings and training sessions from their own office locations throughout the state without the loss of work hours and additional expenses incurred from travel.

## **ITSD Supporting the Department of Public Safety**

### ***Missouri Emergency Resource and Information System***

The Missouri Emergency Resource and Information System (MERIS) went online in March, 2008. At this time over 800 users have been added to this system representing various state, county, and local agencies.

## **ITSD Supporting the Department of Revenue**

### ***Integrated Motor Vehicle and Drivers License (IMVVL) - Phase 1***

The Cash, Customer and Dealer Management (CCD) phase of the Integrated Motor Vehicle and Driver License went live on September 2, 2008. A preliminary schedule for the remaining components includes the Motor Vehicle (Vehicle Titling, Registration and Inventory), Driver License, Workflow and Imaging has been proposed. This schedule proposes the Motor Vehicle application starting on October 1, 2008 with deployment in April 2010. The remaining components of Motor Vehicle (Vehicle Titling, Registration and Inventory), Driver License, Workflow and Imaging are currently on hold pending the availability of funding.

### ***License Plate Reissuance***

Beginning June 16, 2008, Missouri introduced a newly-designed license plate. The new plate became available at the contract license offices issued for renewals due in June 2008 and beyond, or for titling/registering a new vehicle. The re-issuance process required modifications to many motor vehicle systems including TRIPS, GRS, MORE, KEDS, and database information. Personalized and specialty plates will begin re-issuance in January 2009.

In preparation for the rollout of plate reissuance functionality, the application team worked diligently to improve and enhance processing via the TRIPS system. This preparation contributed to the smooth transition to reissuance, while also reaping great benefits in overall customer satisfaction. The project team received accolades from all 183 contract offices, noting the improvements and no issues with TRIP outages or slowdowns during this critical implementation. This stabilization of the application during such a significant change to the core processes is a significant achievement.

### ***Call Management System***

A new Call Center Automated Resource System (CARES) for the areas of DMV Academy, Motor Vehicle, Driver License and Tax, was implemented in April 2008 to handle inbound calls. The outbound calling portion of CARES was implemented in mid-June within an area of Tax in support of a team of 25 individuals. New features include: consolidating three different call management systems into one; improved reporting; displaying the caller (customer) information to the telephone information operator upon receiving the call; communicating to the caller the number they are in the queue; providing music for all callers on wait and important DOR news/information. This system provides a standard format for DOR's communication to the caller.

The DMV Academy added an e-mail option to the new call management system on May 12, 2008. This allows a contract office to submit an e-mail to DOR telephone operators and the e-mail is placed in the queue as an actual call. The next available operator receives the e-mail message and can assist the contract office. This reduces toll free telephone charges to the DOR, provides better customer service, and frees up the contract office telephones.

## **ITSD Supporting the Department of Social Services**

### ***Energy Assistance/Low Income Heat Energy Assistance Program (EA/LIHEAP)***

EA/LIHEAP provides low income families with grants for heating expenses during the fall and winter seasons. A new web-based eligibility system was developed and implemented enabling Community Action Agencies to provide immediate eligibility determinations accessing the system through the Internet. The system generates

payments to energy suppliers on behalf of citizens who qualify for assistance and improves automated calculation and data collection abilities resulting in decreased error rates when processing applications.

Performance metrics from the first month of the 2008/2009 season demonstrate the increased efficiency of the new system. The average number of days for Community Action Agency partners to process an Energy Assistance application has decreased from 14 days to 3 days. In cases where the entire household receives Food Stamps, the process takes less than two minutes. These shorter processing times are especially beneficial to the elderly or citizens with health issues where their heat is in the process of being shut off.

### ***WEB-Based Background Screening Investigations System***

In the continued interest of child safety and welfare, a web-based application was developed and implemented to facilitate processing of background screening requests. The new system allows schools, health care facilities and other entities that work with children to use the Internet for a Child Abuse and Neglect background check on potential new hires. If there is no finding, an immediate response is generated indicating the potential candidate is not known to the system. Otherwise, the Background Screening Investigations Unit performs an in-depth investigation and contacts the requesting agency with the necessary results. Requesting agencies must pre-register with DSS and agree to meet all confidentiality and legal requirements to gain access to the system.

### ***Migrate Network to Next Generation Network***

Approximately 110 locations were migrated during 2008 to the Next Generation Network. This is the first phase of the project to migrate all data circuits providing wide-area network connectivity to the Department of Social Services statewide locations from the Frame-relay transport to the Next Generation Network MPLS transport. This migration provides more network capacity for approximately the same monthly cost while providing quicker response time for Department of Social Services computer applications.

# 2008 Agency Accomplishments

## Department of Conservation

### *E-Mail System Migration*

The Department of Conservation moved from the GroupWise e-mail system to Microsoft Exchange/Outlook. This migration will serve to enhance compatibility with other state agencies and position the agency to take full advantage of the integrations between the various Microsoft Office products, utilizing Exchange as the e-mail transport system. This involved moving 1700 mailboxes and their associated e-mail archives between the two systems.

### *Data Warehouse*

A data warehouse combining information from fifteen different software applications was placed into service during 2008. This storage repository forms the foundation of the Department of Conservation's data collection and storage systems for the future. A benefit of the data warehouse is that it provides one source of the "truth" and a common data repository for reporting capabilities. Reports for financials from the system were also completed and placed into service.

### *Natural Resource Conservation Service (NRCS) – US Department of Agriculture (USDA) Office Connectivity*

As part of updating their computer security, NRCS and USDA offices around the state removed non-federal computers from their networks. This move affected both the Departments of Conservation and Natural Resources staff located in those shared offices. As a result, MDC and DNR staff saw their connectivity to the Internet and state networks disappear. MDC and DNR partnered on the installation and sharing of DSL connections at 48 of these offices in order to restore state employee connectivity to the Internet and state computer networks.

## Missouri State Highway Patrol

### *Laboratory Information Management System (LIMS)*

Originally developed and deployed in 2006, the LIMS system is regarded as one of the most advanced systems currently in use by state crime labs. It provides a completely automated flow from the acceptance of evidence, processing, and the return of reports and materials. Support is in place for drugs, firearms, toxicology, DNA, fingerprints, and

trace analysis investigations. Worksheets are locked and secured so that only authorized users can view them and only the author has editing / change rights. There is a variety of tracking capabilities that ensure the status of any particular action is identified and that every individual involved in the processing is recorded by name and date of action. Robust auditing capabilities are available so that authorized officials can review every action relating to a specific investigation. In the past year new servers were added to each of the seven remote sites, providing greater user functionality and operational redundancy. This new capability provides increased performance by reducing network traffic and redundancy for mitigating computer downtime at the GHQ site.

### ***Website Redesign***

A major upgrade to the Missouri State Highway Patrol (MSHP) public website was undertaken in 2008. Among the new features are real-time arrest reports, online access to the Patrol News, an Amber Alert Portal, online access to news reports and MSHP brochures. The new enhancements make it possible to download and print the majority of this information.

Other improvements feature rotating pictures of troopers that have made the ultimate sacrifice - twenty-seven between 1931 and 2008. A new capability makes it possible to click on any photograph and be redirected to a narrative story about the incident that resulted in the patrolman's death. The same functionality was added for missing persons. Pictures are continuously cycled on the website home page and by clicking on any picture the user is redirected to a secondary page with additional information. Three separate categories of missing persons are provided - adults, children, and unidentified.

Other enhancements include statistics for crash fatalities, including YTD totals, percentage change from previous year, and comparisons for the last three years. A state map is provided which allows a user to click on any of the nine troop locations and get specific information for that command center. Recruitment pages were enhanced to include videos and articles in an attempt to highlight the attractiveness of working as a law enforcement professional.

### ***eCrash Maps***

The MSHP Statistical Analysis Center (SAC) developed and deployed several new reporting systems during the year. One of these is a geographic web-based system that displays MSHP-investigated fatal crashes through precise representation on a Missouri state map. Fatal crashes are added to the maps within 24 hours of their occurrence in 2007 and 2008. Website features include query by crash type, crash severity, day of the week, contributing circumstance, time period, and geographic location such as troop, county, and city.

This system is a tiered 'drill down' application that allows a user to query at a high level and then progressively select views with greater and greater detail culminating in a display that shows the exact location of the crash, time and date, and crash report number. Map layers can be generated for crashes involving alcohol or commercial motor vehicles.

Point and click mapping tools provide the ability to display information for a selected crash in a pop-up window or link to the MSHP Online Traffic Crash website.

## **Missouri Lottery**

### ***Agency Debt Offsets and SFTP Server Implementation***

There are a number of agencies desiring to utilize a debt offset process with Missouri Lottery in order to collect state-owned delinquencies from players winning lottery prizes. A system was created in order to standardize this process. Identifying and creating this standard allows the Lottery to create interfaces more efficiently, thus providing the requesting agencies better service and minimizing implementation schedules. To date, this new interface has been established with the Departments of Social Services and Labor and Industrial Relations.

Tied to this initiative, the Missouri Lottery established an independent SFTP server for managing the data exchanges with outside entities. Existing data exchanges were converted to utilize this secure technology for managing data.

### ***Microsoft SQL Server 2000 Migration to 2005***

Missouri Lottery upgraded all in-house databases from Microsoft SQL Server 2000 to Microsoft SQL Server 2005. Moving to this version of the Microsoft database environment at this time provided the opportunity to utilize many new features of the product that specifically enhanced performance, integrity and security of the business systems. This migration opportunity was also used for moving the database environment to a redundant cluster server, adding availability and reliability to this service.

### ***Show Me Cash Rollout / Draw Servers***

A component of the Lottery marketing plan for FY09 included an evaluation of the daily cash game and the continued decline in player interest and sales. A complete overhaul of the product was determined to be the best solution and was proposed and implemented this past calendar year. The changes required necessitated nearly as much effort as a complete new game, but the early results have been positive for the organization. In conjunction with this gaming effort, the computerized drawing equipment was upgraded to add redundancy to the servers, new draw pc units, upgrading all OS environments to current service packs and performing a complete recertification of the draw systems.

# Department of Transportation

## *New Fleet Management System*

The new Fleet Management system, FASTER, implements technology that will help produce improved Missouri Department of Transportation (MoDOT) fleet management decisions and reduce the labor currently used to maintain the existing system. In addition, it will forecast required preventative maintenance parts for just-in-time (JIT) ordering, recover costs of parts and labor under warranty and incorporate a Parts Inventory System. FASTER will enable better fleet purchasing, leasing, disposal, and maintenance decisions and allow MoDOT to improve the overall efficiency and effectiveness of MoDOT fleet purchasing and operations. Implementation to the new fleet management system began with the pilot, District 7, implementing FASTER the first week of September 2008. District 4 went live October 27, 2008 with District 8 following on November 17, 2008. The plan is to bring one district on at a time every other week. Remaining districts will be implemented by March 30, 2009.

## *GPS Reference Stations*

GPS Reference Stations enable MoDOT surveyors to accurately calculate positions in real-time within centimeters, instead of feet. In future years it will be invaluable to the planning and creation of roads and bridges. Phase 1, St. Louis Pilot, of the GPS Reference Station project was completed October 17, 2008 and has 20+ users outside MoDOT accessing the data via the web. MoDOT is currently in Phase II Statewide Implementation, has completed construction in Kansas City and are ready to begin the Springfield, Joplin, & Branson areas. Plans are to complete the I-70 and I-44 corridors and the district offices this fiscal year. This will leave approximately 11 base stations to complete in FY10.

## *Interstate Message Boards*

Message boards allow the traveling public to benefit by receiving timely, accurate information about road conditions, traffic delays and detours as well as Amber Alerts. Beginning in fiscal year 2008 and continuing into 2009, 55 Dynamic Message Signs (DMS) were deployed along the I-70 and I-44 corridors. In 2009 additional work efforts will be done to expand the DMSs to I-29, I-35 and I-55. Also, there is a current 2009 work effort to deploy CCTVs (Closed Circuit TVs) in conjunction with each sign.

# Office of the State Treasurer

## *Online Automated Clearing House (ACH) Receipts System*

During 2008 a system was implemented to complete the online ACH Receipts Systems Portal. This project has been completed and has increased efficiency within the State Treasurer's Office (STO) – Division of Banking. STO can now interface with Missouri banks via an electronic receipt system. The Automated Clearing House (ACH) receipts

system is a management tool that allows the banking division to balance and track all bank ACH receipt files. This system is available statewide via a web interface portal to participating state agencies.

### ***Domain and Mail Upgrade***

The State Treasurer's Office (STO) recently upgraded the domain and mail server environment. This new domain enables STO to create and maintain a secure environment for servers and end-user desktops. The upgrade will help facilitate and fine-tune security policies with expanded auditing policy features that allow STO to granularly configure systems. STO will also be able to take advantage of many other new features that will better serve customers, while tightening security.

### ***SQL Server Migration***

The STO initiated migration of older SQL Server applications to the latest SQL Server database technology. This migration allowed STO the opportunity to utilize many new features of SQL Server that enhanced performance, integrity and security of the business applications. SQL Server provides greater system availability to users for disaster recovery through high availability technologies. By moving application to this new service, STO employees will be able to provide citizens with an immediate response to their requests.

# 2009 ITSD Planned Projects

## ITSD Supporting the Office of Administration

### *Risk Management System*

The Risk Management System is one of the oldest systems supported by OA/ITSD staff and over the course of years; many changes and additions have been made to the system. Because of all the changes, the mainframe screens are becoming very cumbersome to use. General Services would like a completely new Risk Management System that is browser-based and more flexible to the changes that occur each year.

### *Fleet Management System*

The OA strategic plan calls for a central pool of state vehicles located in Jefferson City. With this direction, General Services would like an additional module developed for the Fleet Management System that would serve as a Car Pool Reservation System. This system will track all the state vehicles in use and allow for reservations by state employees

### *Systems Upgrade*

OA/ITSD has many IT systems developed using CA AllFusion (formerly CoolGen) that are maintained by development staff. As a part of other upgrades, we will be required to upgrade those applications to AllFusion version 7.6. This will be a major undertaking and in many cases will require large rewrites of applications to ensure they continue to function as expected.

## ITSD Supporting the Department of Agriculture

### *Laboratory Information Management System (LIMS)*

Early 2009 is the target completion date of the LIMS (Laboratory Information Management System) for the Fuel Quality Program. LIMS is designed to work with fuel testing instruments for tracking, reporting, and analysis of fuels.

### *Server Virtualization*

In 2009 we will be deploying a virtualization of our core servers. This deployment will automate an existing backup process and replicate the data to an off-site location. In the

event of a hardware failure the virtualized servers will kick in and appear seamless to the customers.

### ***WinWam Software***

Implement the WinWam (Windows Weights and Measures) device inspection software program. The program will automate the field inspections of large scales, small scales, and weighing devices. In the past few years this section has lost 20 percent of its inspection due to budget cuts. This program will replace the paper flow process and get the inspections done more efficiently to meet their state mandate for completing the inspections in each calendar year.

## **ITSD Supporting the Department of Corrections**

### ***Adult Institution Local Area Network and Computer Hardware Upgrade***

This is a continuation of the upgrades that were started in 2006. During 2009 the computer network upgrades will be completed and dumb terminals will be replaced with personal computers at Farmington Correctional Center, Ozark Correctional Center, Northeast Correctional Center, and Fulton Reception and Diagnostic Center; the computer network upgrade will be completed at Missouri Eastern Correctional Center; and the computer network upgrades will begin at Potosi Correctional Center and Crossroads Correctional Center. These upgrades allow Department of Corrections' staff to be more productive in their daily work duties.

### ***Offender Management Information System Replacement***

During 2009 ITSD/DOC will continue to work a number of projects to replace portions of the Offender Management Information System—OPII—that the Department of Corrections has utilized for the past 10 years. Efforts will be concentrated on replacing modules utilized by the Division of Probation and Parole, including the following modules: Status and Sentencing, DNA/Sex Offender, Property, Assessments, Caseload Assignment, Case Summaries-P&P, Violations-P&P, and Board. Replacing these systems with systems based on current web technologies will reduce maintenance costs and improve Department of Corrections' staff productivity.

## **ITSD Supporting the Department of Economic Development**

### ***Customer Management System Re-write***

Continue with the development of a replacement system for the Customer Management System (CMS) (aka Tax Credit Administration System). CMS was originally designed

with the idea of being the central repository for all financial offerings for the Department of Economic Development. With the addition of other agencies, CMS became the state's repository for tax credit administration. Enhancements will include developing an integrated case management approach to projects, improved reporting and analysis, and the ability to include entitlement-based programs.

### ***Department of Economic Development Website Re-design***

ITSD/DED will continue with the re-design of the Department of Economic Development's website. Initial stages of the re-design started in November 2008.

### ***MERIC Infrastructure Upgrade (Oracle/MySQL to Microsoft SQL 2008)***

This effort is to consolidate Oracle and MySQL databases into Microsoft SQL Server 2008. The project will allow MERIC to provide enhanced GIS tracking and reporting, enable the delivery of dynamic website content, and streamline database administration. Project completion is set for early 2009

## **ITSD Supporting the Department of Elementary and Secondary Education**

### ***Electronic Planning and Electronic Grant System (ePeGS)***

The analysis of the second phase of the ePeGS system began in 2008 to automate the No Child Left Behind entitlement grants. Development and testing of the system will occur during the 2009 calendar year. This phase of the project will complete the transformation of legacy systems that have not kept up with changing business needs and law changes. If funding is available, the third phase of the project will begin at the conclusion of the second phase. The third phase is intended to analyze and develop the needs for a variety of Competitive Grants as well as enhancing the Needs Assessment portion of the Plan tool with information from the Missouri School Improvement Program process.

### ***Licensure System***

This project is intended to be a computerized system that is a complete record of the components and decisions required for issuing, revising, renewing, and revoking a Missouri certificate of license-to-teach. Processes used by the Educator Certification section within the Department of Elementary and Secondary Education will be improved in order to increase the efficiency and productivity of the section. This system will also more fully integrate Substitute Educator Certification; Background checks and FBI fingerprints; Praxis test scores; Competency reports for Educator Preparation programs; and linkage to Core Data with the Educator Certification processes. In addition, more automated processes will be put in place to ensure the accuracy of data used in the certification of educators including automating some processes for accessing external data sources used to verify convictions or other unacceptable behavior. Analysis of this project began in 2008 calendar year and will continue in 2009. If funding is available, it is anticipated that development efforts will begin in the 2009 calendar year.

### ***State School Classroom Network Connectivity***

This project is to extend the network connectivity in the Missouri Schools for the Severely Disabled. Last year a project was completed to provide network connectivity to all the school's administrative offices. The follow-on project is to extend the network to the classrooms in order to provide teachers with access to teaching information and other resources. Also, in some cases, students will be able to use computing resources too. An additional benefit for the connectivity will provide facilities management with network connections to critical infrastructure within the buildings in order to remotely monitor HVAC and other systems.

## **ITSD Supporting the Department of Health and Senior Services**

### ***Disaster Recovery Plan***

ITSD/DHSS is currently working on improving their data disaster recovery plan. This will involve coordinating with DHSS to identify critical applications which are essential to supporting the department's mission during an emergency and replicating them offsite.

### ***Server Virtualization***

ITSD/DHSS is in the process of implementing server virtualization and blade centers to consolidate servers. This should reduce cost of equipment maintenance, replacement, and power consumption. Planned conversion ratio is 18 servers to 1 blade server.

### ***Application Modernization***

A priority during 2009 will be to modernize several enterprise applications written and developed in older, out-of-date programming languages. Some of these applications include Women, Infants and Children (WIC), Vital Records (Birth Certificates), Disease Surveillance, Service Coordination, Immunizations Registry, and Seniors and Disability Services.

## **ITSD Supporting the Department of Higher Education**

### ***Post Secondary Institutions Rewrite Project***

The FAMOUS application is a key application for the Department of Higher Education. The interface for the Post Secondary Institutions (PSI) required software installation for the schools which often resulted in problems. The Java SWING language, old and almost impossible to find support or training for, is used in this application. The interface will be rewritten to be a web application using standard technology and the latest version of

Rapid Application Developer. This project will also incorporate many enhancements the PSI's have requested.

### ***Data Warehouse and Web Search Application***

The Department of Higher Education has requested a Data Warehouse be designed to house data that currently resides at University of Missouri. DHE has also requested a web search application be available to the public for research and statistical reporting.

### ***SharePoint***

ITSD/DHE has received numerous requests for needs that SharePoint would address. The ITSD/DHE goal is to have this set up for DHE next year and should prove extremely beneficial to the department.

## **ITSD Supporting the Department of Insurance, Financial Institutions and Professional Registration**

### ***NAIC's State Based Systems (SBS)***

The Department of Insurance, Financial Institutions and Professional Registration's (DIFP) top 2009 priority is the migration of DIFP-Insurance systems to the National Association of Insurance Commissioners (NAIC) State Based Systems (SBS). SBS provides the insurance industry a host of online, real-time regulatory tools in support of all aspects of the insurance life cycle. To-date, insurance producer and company data has been analyzed, cleaned, and tested. During 2009 consumer-related and non-standard regulated entity data will be analyzed, cleaned and tested prior to conversion to SBS. Additionally, several new subsystems must be developed to retrieve data from SBS in order to produce invoices and reports not currently available in SBS, as well as feed other regulatory systems.

### ***Website Redesign***

This project involves the redesign of the department and division websites to provide improved usability, functionality and technical improvements. During 2008 a review and analysis of the DIFP website was conducted. The primary site was moved to a new environment (Kinetic Services) and the Division of Professional Registration completed a redesign effort ensuring services and information provided on the Internet are available in a more usable and uniform manner (<http://www.pr.mo.gov>). During 2009 the redesign and revitalization of the DIFP Internet site is planned. The changes will provide for improved access to key DIFP data by Missouri citizens and other interested parties.

### ***Secure Wireless Network Extension***

The need to provide more flexible network connectivity with the Division of Professional Registration, especially in the common areas such as conference rooms, has grown

significantly in order to facilitate the increased number of locally held meetings. This task, when completed, will enhance the division's existing internal physical network by adding secure (using the existing active directory infrastructure) wireless access similar to efforts underway within the Truman Building to the entire Professional Registration site.

### ***Optical Imaging System Upgrade***

During 2008 many of the DIFP's optical imaging facilities were upgraded. This continuing task addresses the need of upgrading the optical imaging system utilized within the Division of Professional Registration to newer versions of the core software in order to provide better support and new functionality to the systems users.

## **ITSD Supporting the Department of Labor and Industrial Relations**

### ***Department of Labor Enterprise (DOLIR) Integration Platform***

A priority for 2009 is the design, development and build of the DOLIR Enterprise Integration Platform to support the modernization efforts of the Division of Employment Security, the Division of Worker's Compensation and potentially, the Division of Administration and Division of Labor Standards.

### ***Unemployment Insurance Modernization – Phase 2***

During 2009 the build phase of Unemployment Insurance Modernization (UIM) will develop and implement an entirely new system to replace the current one, which has labor intensive manual functions. The resulting savings will not only reduce the resources needed to comply with current Employment Security law, but will also respond more rapidly to new provisions of the law.

### ***Workers' Compensation Modernization – Phase 1/Phase 2***

The Workers' Compensation Modernization (DWC) project will replace the current business system supporting operations of the Division of Workers' Compensation. Phase 1 provides a complete business analysis of the Workers' Compensation business operations. The requirements and recommendations from Phase 1 will be used in Phase 2 for the design, development and implementation of the new system. Phase 2 will be the design, development and implementation of the system using the business analysis requirements/recommendations. Phase 1 began in July 2008 and is scheduled for completion in April 2009.

### ***Missouri Employer Tax Registration System***

Design, develop and implement an Internet/Intranet-enabled Missouri Employer Tax Registration System (METRS) for the Division of Employment Security (DES). This system will allow DES to provide employers with a secure, private, and convenient method for filing employer registration information, determining employer liability, and

offering a link to file quarterly tax and wage reports and submit payments online. Customers of this system include both employers and DES staff. Employers include those that are liable and potentially liable. The project began in January 2008 and is scheduled for release mid-2009.

## **ITSD Supporting the Department of Mental Health**

### ***State and Facility Electronic Medical Record***

This next calendar year will bring the completion of the framework for the State and Facility Electronic Medical Record (EMR.) The State's initiative is a multi-agency endeavor that will benefit consumers throughout the state in and outside of state government. The Facility initiative will integrate with the state's Emergency Management Response (EMR), however it will be customized to meet the specific needs of the facility. Both will play a key role in the coordination of care for consumers in DMH facilities.

### ***Claims Management System***

Planned for 2009 is the Completion and implementation of the Claims Management System (CMS) that will improve the accountability for billed services by third party systems and organizations. Once complete, CMS will integrate into CIMOR and manage all third-party billing. This will eliminate several disparate legacy payment systems, improve the reliability of provider billing, improve the accountability for billed services, and improve the overall integrity of our billing systems.

### ***CIMOR Implementation for Provider Communities***

CIMOR will be implemented in the provider communities supporting the divisions of Developmental Disabilities (DD) and Comprehensive Psychiatric Services (CPS.) CIMOR is currently utilized for the entire division of Alcohol and Drug Abuse (ADA) administration. In the divisions of DD and CPS, CIMOR is only used for the state operated facilities. The further implementation of CIMOR will result in the removal of legacy systems that are becoming increasingly difficult to support. ITSD/DMH estimates CIMOR will be ready in February 2009. Scheduling of the implementation will be primarily a business unit responsibility; however, at this time the DD division will undertake the first roll out in the first quarter of CY 09.

## ITSD Supporting the Department of Natural Resources

### ***Enterprise Geographic Information System (GIS)***

The department is currently using a web-based application for editing geographic information system (GIS) data, but the application uses significant system resources, a cause of concern. In response, ITSD/DNR staff plan to implement a web-based editing application that will use significantly fewer system resources and can therefore support many more concurrent users than the current application. The new application is also being designed for ease-of-use and will be able to exploit some of the more advanced features in GIS-server technology. The system will make use of enterprise GIS, relational database, application, and web server technologies that all work within the department's standardized information technology architecture.

### ***2009 Application Development Projects***

Several application development projects are planned for 2009:

- The analysis and design will begin to replace the antiquated Missouri Emission Inventory System (MoEIS).
- MoCWIS Water Permitting and Compliance development will continue with completion targeted for September 2009 and User Acceptance Testing scheduled for December.
- Air Permit fees added to Fee Tracking System (FTS)
- Underground Storage Tank (UST) application

### ***Video Conferencing – Phase 2***

Video Conferencing (Phase 2) will include equipment to allow the DNR to make commission meetings available via the Internet.

## ITSD Supporting the Department of Public Safety

### ***Interoperable Communications Network***

During 2008, the State of Missouri received federal funding for \$17,465,000 in grant funds from the \$1B grant opportunity to states and territories from the federal government's 2006 Call Home Act. The act mandated auction of television spectrum arising from the transition to digital television in February, 2009. Missouri's share of the grant will provide a basic statewide, VHF interoperable communications network and other related investments outlined in the *Statewide Interoperable Communications Plan* (SCIP).

Called the "Public Safety Interoperable Communications" (PSIC) grant, funds must be spent in accordance with state planning initiatives. The Legislature approved the

matching funds necessary for the federal grant on behalf of public safety agencies at both the state and local level. Investments will include disaster recovery interoperable wireless communications equipment, training in the use of interoperable communications equipment for first responders and communications personnel, and a series of investment strategies which included expansion of regional interoperable communications systems in the Kansas City and St. Louis regions.

The Department of Public Safety continued to lead efforts to complete plans for a new, multi-band statewide communications system. Working with an engineering consultant at the state's Division of Facilities Management - Design and Construction, bid specifications were completed late spring 2008. In July 2008 bids solicitations were announced for the lease-purchase of a new VHF-band *Project 25 Digital* communications system, which would leverage not only existing 700 / 800 MHz systems in the urban areas of the state, but would integrate the PSIC funded interoperable communications assets into a single, statewide network. Although the General Assembly approved the first year's funding (\$9M) toward construction of the network, actual construction will take at least 3-4 years to complete. The Department of Public Safety intention is to seek the award of a contract by the end of calendar year 2009.

## **ITSD Supporting the Department of Revenue**

### ***“No Tax Due” Project***

Beginning January 1, 2009, the possession of a statement from the Department of Revenue (DOR) stating no tax is due under sections 143.191 to 143.265, RSM0, (withholding tax) or sections 144.010 to 144.510, RSMo, (sales tax) shall be prerequisite to issuance or renewal of any city or county occupation license or any state license required for conducting any business where goods are sold at retail. The online No Tax Due system will allow political subdivisions, state agencies, and business tax owners to determine if a business has "no tax due" without requiring a piece of paper to be issued by the Department of Revenue. If, through the online system, a no tax due cannot be issued, the business will be directed to contact the Department of Revenue to obtain one.

### ***Ignition Interlock***

Effective July 1, 2009, the Department of Revenue will be responsible for enforcing the administrative requirement on ignition interlock devices for alcohol/drug offenders. Repeat offenders must provide proof of installation of the ignition interlock device to the department in order to obtain a limited driving privilege, restricted driving privilege, or as part of their reinstatement of their full driving privilege. The ignition interlock device must be maintained on all motor vehicles operated by the person during the period of limited or restricted driving privilege, or for a period of at least 6 months following the date of reinstatement. If the person fails to maintain the ignition interlock proof, their limited or restricted driving privilege will be terminated, or their driving privilege will be

suspended for the remainder of the six-month period or until the person files proof with the department director. Currently the Department of Revenue has no means to track ignition interlock devices on their driver license system, so adding this functionality will be a joint effort between the Driver License Bureau and the ITSD/DOR Missouri Drivers License (MODL) team to make this enhancement to the MODL system become a reality.

### ***Personalized/Specialty License Plate Re-issuance***

All Personalized/Specialty plates will be re-issued beginning January 1, 2009. The significant changes impacting taxpayers include modifying the current plate's expiration from a non-staggered expiration type to a July month of expiration and a fee for the manufacture of the new plate. The technology features incorporated into the project includes a website where the taxpayer can log on and reserve/order his plate for the renewal year. This allows only the plates requested to be manufactured, saving considerable costs and does so using a completely automated process reducing significant manual workloads.

### ***Integrated Motor Vehicle and Driver License System***

This initiative is a multi-year project, scheduled over a five-year period, and ultimately will provide a single view of the DOR customer, motor vehicles, driver licensing, and dealer licensing. These new capabilities will provide law enforcement with significantly better information. Law enforcement will now be able to know the probable identity of the driver of a vehicle before physically walking up to it.

The new system combines the 23 motor vehicle and driver license systems currently in use, providing a single system to process all vehicle and driver license business transactions for DOR customers. Some of the systems in use today were created using techniques which seem antiquated when compared to modern technology. There have been significant technology improvements in recent years and this system will allow the Department of Revenue and the state to take advantage of that new technology. This initiative consists of four phases. The first phase was implemented on September 1, 2008. The first phase included the Customer Management, Cash Management and Dealer Management modules. The remaining phases include Motor Vehicle Titling and Registration, Workflow and Imaging, and Driver License Processing. These phases are currently on hold pending the availability of funds.

## **ITSD Supporting the Department of Social Services**

### ***Enhance the Energy Assistance/Low Income Heat Energy Assistance Program (EA/LIHEAP) System***

Enhancements for the eligibility system in 2009 include Internet access to generate forms, track worker statistics and provide workers a method to generate management reports on demand. Another planned enhancement will provide a web-based system for

clients with Internet access to apply for assistance via the Internet instead of having to visit their local Community Action Agency office.

### ***Claims and Restitution – Discovery Enhancements***

Enhancements to the Family Support Division's Claims and Restitution System (CARS) will be implemented in the first half of 2009. The Temporary Assistance cash benefit program is the first public assistance program that will use the new "Discovery" enhancement. Additional public assistance programs will be included in subsequent months.

The "Discovery" enhancement will generate billing and collections related correspondence to clients, claims and collection related management reports to eligibility specialists, supervisors and welfare fraud investigators, and maintain claims tracking information which will be readily available via on-line screens.

### ***Replace Outdated Personal Computers and Ethernet Switches***

In the spring of 2009, ITSD/DSS plans to replace approximately 2300 personal computers and 117 Ethernet switches state wide.

# 2009 Agency Planned Projects

## Department of Conservation

### ***PC Replacement Process Enhancement***

Replacement of computers throughout the state is a labor intensive operation made more costly by the dispersed nature of agency staff. In order to gain efficiencies, drop shipping of computers to the installation sites will be implemented in 2009. IT staff worked with a computer vendor to finalize the process of preloading computers at the factory with the appropriate software. Computers will now be shipped directly to the end-user and the configuration of the new computer and data transfer from the old PC will be completed via remote control. This will eliminate a significant amount of travel for IT staff. A contractor has been engaged to remove all agency data from the old computers, certify that the computers are "wiped" to state standards and sell or recycle the old computers. If the computers are sold, the value is reimbursed to the state. This process has offset the labor of 1 FTE.

### ***Communication Integration***

During 2009 MDC will finalize conversions of all agency computers to Microsoft Office 2007 and implement Microsoft Office Communicator. Integrations between Office, SharePoint, Exchange and Office Communicator will allow the agency to share information nearly seamlessly between staff, even if located in a remote office. Communicator will allow employees to take advantage of instant messaging and provide a tool to allow video conferencing at the desktop. Utilizing this technology helps to reduce the need to travel for meetings which saves the agency fuel, vehicle expenses and employee time spent driving. As offices are converted to the state's Next Generation Network, bandwidth for enhanced communication such as video will become available.

### ***TALON System***

MDC plans are to finalize development, user testing and deployment of a system to geographically track employee time expenditures and accomplishments. This is a component of a multi-year project to allow the agency-enhanced management tools to pinpoint where dollars are invested, employee time is spent and land management activities are performed. This system will give MDC the building blocks to analyze how much is spent on a particular conservation area, in a county, on various management activities, etc.

## Missouri State Highway Patrol

### ***Missouri Criminal Justice Modernization Project (MCJMP)***

The Missouri State Highway Patrol (MSHP) has undertaken a major initiative to upgrade and enhance the operational systems that support its core law enforcement mission. Included in the 2009 effort will be automated systems for criminal history, statewide message switching, mobile computing, and computer aided dispatching. Also included is a procurement initiative to acquire a records management system - a capability not currently available to the Patrol. The MCJMP state-of-the-art technology and advanced user functionality will greatly enhance the Patrol's ability to carry out its assigned mission. As of November 2008, the first contract award has been made for a Criminal History System and implementation will begin in early 2009.

### ***Voice Over IP Expansion***

An effort is underway to implement a system-wide Voice-Over-IP (VOIP) communication capability. In October 2008 a new headquarters building for Troop C was opened and started operation. As part of this effort, it was fitted with telephone communications using VOIP. This first site has demonstrated the viability and potential cost savings of this capability. The next scheduled site is the Communications Division at the General Headquarters. Following these VOIP changes, the Crime Lab is scheduled for implementation. A plan is currently being developed to implement across all MSHP sites and it is expected that full operational capability should be in place by the end of 2010. Once fully implemented, the system will reduce costs and increase intra-agency communication capabilities.

### ***Disaster Recovery/Backup Enhancement***

The MSHP has entered into a cooperative relationship with MODOT to implement hot site back-up capabilities for critical operational systems. MODOT received funding and approval to build a new site in Lee Summit, Missouri. Included in these plans is a provision to build additional facility space specifically for the purpose of housing backup equipment, supplies, and staff. Additionally, a high-speed communication link will be installed between the MSHP and the new site, plus the facility will be shared between the two agencies. Expected capabilities include hot site roll-over in case of man-made or natural disaster outages or degraded service and sustained non-interrupted continuity of operations for extended periods of time.

## Missouri Lottery

### ***New Game Product***

In November 2008 the Missouri Lottery Commission approved the online game of Lucky Dough in order to increase the revenues for fiscal year 2009. A very aggressive time schedule for the online vendor and the Missouri Lottery staff is necessary to meet the

early March 2009 start date. The addition of a new online product affects the entire scope of the business including retail licensing, retail incentives, accounts receivable, prize payment and management information subsystems. Software will be developed to manage these new licensing and marketing needs with added flexibility to allow staff to continually monitor and adjust these new programs.

### ***Retailer Operations System Rewrite***

The current software used to manage retailer applications, licensing and accounts resides on the Lottery's Stratus system where it has been a viable tool since 1985. In its present environment, however, there are many limitations for utilizing user-friendly data management tools. This resulted in dual entry of data into small databases and spreadsheets, making the subsequent reports time consuming and prone to discrepancies. The organization has been moving systems to the LAN/WAN environment to make systems more robust and accessible. The plan is to migrate this business function in 2009.

### ***Web Development***

Web development will be a priority for the upcoming year. There are currently two business units within Missouri Lottery that have identified the need for enhanced functionality and the rebuild of a legacy system. These development efforts will include new functionality that is designed to streamline processes and improve business efficiencies. Additional emphasis will be made to enhance the services and functionality of the My Lottery player's club.

## **Department of Transportation**

### ***Next Generation Desktop (NGD)***

The intent of the project is to upgrade MoDOT's aging desktop computing infrastructure from Microsoft Windows 2000 and Office 2000 to Microsoft Vista and Office 2007. The NGD Project includes Active Directory (AD) upgrade, Windows Server upgrade, SQL Server installations, desktop/laptop bulk buy replacement, the Vista operating system (OS), Office 2007, System Center Configuration Manager (SCCM), and SharePoint. The NGD project is in the analysis phase of a four-phase systems development life cycle. Phases consist of analysis, design, development, and implementation/maintenance. The analysis phase began with a readiness assessment conducted by Dell Professional Services. Information. This assessment was undertaken to determine where we are today and the health of MoDOT's IT environment. In addition, the assessment has provided information on remediation necessary to successfully move ahead to the next phase. Design will commence upon direction from the NGD Steering Committee. During the design phase remediation of existing issues discovered during the analysis phase will be addressed and a detailed project plan created. The Design Phase is anticipated to begin during the early part of December.

### ***Sharepoint***

SharePoint was selected by the Document Management Project Steering Committee as a result of a need identified within MoDOT for efficient and effective storage and retrieval of millions of records. When SharePoint was selected as the basic content services tool to manage these documents, it was deemed appropriate to coordinate the deployment and implementation of SharePoint along with the Next Generation Desktop (NGD) project.

SharePoint is a collaborative, web-based service and will initially include sharing documents, wikis, blogging, and revision control functions. Later this will be expanded to also add online spreadsheets, workflow, knowledge management, etc. Document management will begin with records management and will evolve into content management.

The Dell Corporation was selected to perform a readiness assessment, which included those aspects within the NGD project, and began its work in September 2008. Dell will be presenting its findings to the MoDOT IS Executive Team in early December, and a working team will review those findings and submit recommendations. The next phase of the project will be the design phase, which will most likely take 6-12 weeks to complete. One of the deliverables from the design is a project plan which will provide a timeline for implementation.

### ***Fiber Connections to Message Boards***

This project is designed to provide reliable network connections to message boards on I-44, I-70, I-29, I-35 and I-55. MoDOT is currently installing access points (or hand holes) along these corridors to allow ease of access to the existing statewide fiber optic network to message boards and planned connection of traffic cameras. Once accomplished, this initiative will improve the reliability of messages posted to remote message boards. This will allow the traveling public to benefit by receiving timely, accurate information about road conditions, traffic delays and detours as well as Amber Alerts. Installation of access points along I-70 & I-44 is now complete. The next phase to be completed in 2009 is currently in progress for the installations on I-29, I-35 and I-55.

## **Office of the State Treasurer**

### ***STO Website***

The Office of the State Treasurer will be launching a new website in 2009 to reflect the new change in administration. The STO goal is to enhance citizen access to services and programs available through the State Treasurer's Office. Citizens will be able to access press and event information, and keep up-to-date about major initiatives undertaken by the treasurer. The site can be viewed at <http://www.treasurer.mo.gov>.

### ***Virtual Private Network***

The State Treasurer's Office (STO) is working on a Virtual Private Network (VPN) that will allow STO employees to have a secure portal to state banks and other vendors in the event of a disaster. With VPN we can maintain privacy through the use of secure protocols and security procedures. This allows authenticated remote access to State Treasurer's Office networks and services for Continuity of Operations (COOP) and Continuity of Government (COG) plans as part of STO's Comprehensive Emergency Management Program. The implementation of this VPN will help STO staff work with ease on disaster recovery by allowing employees 24x7 access to mission critical systems.

### ***32 bit -> 64 bit Server Migration***

Over the past few years there has been rapid growth in 64-bit hardware environment and software that can take advantage of the technology. The State Treasurer's Office will be transitioning STO servers from 32-bit to 64-bit, allowing staff to process large volumes of data in a shorter amount of time. This will reduce the amount of time users must wait for reports and other information that is offered by the STO. As a supplement to this project, STO IT will implement virtualization technology that will save energy and equipment costs while improving our disaster recovery response time.